

## THE NEW GEOGRAPHY: THE MAP, THE SATELLITE AND THE COMPUTER

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USAWC STRATEGY RESEARCH PROJECT

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by

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United States Army

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Project Adviser

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## **ABSTRACT**

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Geopolitics is the belief that geography is and has been an important factor and maybe the dominant factor in the policies and the development of the United States and other countries. Many strategists and theorists have given us a view of the world that has been influenced by geography. These theories and theorists have wielded a lot of influence through our history with policy-makers. Today geography influences the policies of many nations as evidenced by global warming, the access to arctic resources and the current geography of transportation and world shipping. It is also useful to expand our analysis to include "new geographies" such as space, cyberspace and other topographies brought about by advances in technology. Although traditional geopolitical theories have not withstood the test of time, a broader view of these new geographies will give us an improved and more complete picture of the geopolitical forces influencing world events.





## THE NEW GEOGRAPHY: THE MAP, THE SATELLITE AND THE COMPUTER.

A victorious Roman general, when he entered the city, amid all the head-turning splendor of a 'Triumph,' had behind him on the chariot a slave who whispered into his ear that he was mortal. When our statesmen are in conversation with the defeated enemy, some airy cherub should whisper to them from time to time this saying:

Who rules East Europe commands the Heartland;  
Who rules the Heartland commands the World-Island;  
Who rules the World-Island commands the World."<sup>1</sup>

-Sir Halford Mackinder, 1919

For decades policy-makers and academics have been arguing the theories of famous geopoliticians such as Sir Halford Mackinder, Nicholas Spykman, and Colin Gray. The arguments generally revolve around which geographic locations offer states the largest advantage and might ultimately allow them to rule the world. Among those who believe that geography strongly influences politics, most of the arguments fall into two camps those who argue the advantages of land-power nations, and those favoring sea-power nations. Looking at geography through the lens of land and sea only, however, gives us too narrow a view of the significance of geography. This paper will look at changes to traditional geographies and suggest that "new" geographies must also be considered by policy-makers.

John Bellamy Foster defines geopolitics as "how geographical factors, including territory, population, strategic location, and natural resource endowments, as modified by economics and technology, affect the relations between states and the struggle for world domination."<sup>2</sup> Christopher Fettweis states it more simply when he writes "Geopolitics is traditionally defined as the study of the influence of geographical factors on political action."<sup>3</sup> While the term was first used in 1899 by Rudolf Kjellen, a Swedish

political scientist, it was employed more famously by the Director of the London School of Economics, Halford Mackinder, in 1904.<sup>4</sup> Mackinder explained the historical development of Europe and the world in terms of geography, arguing that geography is not a factor but the factor in world politics. His beliefs are reflected in his famous quotation “Who rules East Europe commands the Heartland; Who rules the Heartland commands the World-Island; Who rules the World-Island commands the World.”<sup>5</sup> Mackinder identified the Heartland with roughly the area of the map occupied by the Russian Federation today.

Mackinder viewed the world as a struggle between land power and sea power. He posited that land power occupying what he termed the “Heartland” would have the advantage of internal lines. With less distance to travel than sea-powers and the resources of the Heartland the land-power could dominate the world. This emphasis on geography is understandable. History is full of examples of strategy and tactics aimed at controlling key areas or positions on a map to gain a particular advantage. Mackinder simply expanded these concepts to a global scale. As late as World War Two, he pursued the analogy between small-scale warfare and politics. He wrote “The Heartland is the greatest natural fortress on earth.”<sup>6</sup>

Nicholas Spykman developed an alternative theory and dominant geographical area to the Heartland. Spykman emphasized the geographical advantages of littoral areas, which he termed the “Rimland”. Playing on Mackinder’s quotation Spykman wrote “If there is to be a slogan for the power politics of the Old World, it must be ‘Who controls the Rimland rules Eurasia; Who rules Eurasia controls the destinies of the world.’”<sup>7</sup>

These traditional geopolitical theories however, have largely failed to describe the world accurately. Most notably, Russia and the Heartland did not come to rule the world. Christopher Fettweis writes “The Heartland was not impenetrable to the technologies of the last two millennia, much less those of the next.”<sup>8</sup> He posits: “It does not appear true that the Eastern Hemisphere bestows any strategic advantage over the Western...In fact, control over the Western Hemisphere has allowed the United States to rise to an unprecedented position of power.”<sup>9</sup> David Hansen, Dean of Penn State University’s Capital College, agrees by writing “Geography should be among the prominent disciplines that strategists use to determine just what we can do, and where.”<sup>10</sup> However, even if geopoliticians’ boldest predictions did not come true, geography and geopolitics have had a strong impact on world policies and decision-makers.

Since at least World War Two, the theories of Mackinder, Spykman, Gray and Mahan have influenced the strategies and foreign policy of governments. G. L. Sloan wrote “evidence can be provided to support the claim that there is a direct connection between the ‘large policy’ of the McKinley administration and the geopolitical theorist Mahan.”<sup>11</sup> In 1993, Eugene Rostow, undersecretary of state for political affairs (1966-1969) revealed to us how he viewed Russia as Mackinder’s Heartland when he responded to the collapse of the Soviet Union. “[It was necessary to contain] the [Russian] Heartland area, [which] constitutes an enormous center of power from which military forces have attacked the coastal regions of Asia and Europe (the Rimland, in Mackinder’s terminology).”<sup>12</sup> President Carter’s national security adviser Zbigniew Brzezinski agreed with Mackinder’s view on the importance of geography when he

wrote “geographic location still tends to determine the immediate priorities of a state.”<sup>13</sup>

You can see this influence manifest itself in politics in comments made during President Carter’s State of the Union Address “An attempt by any outside force to gain control of the Persian Gulf region will be regarded as an assault on the vital interests of the United States of America, and such an assault will be repelled by any means necessary, including military force.”<sup>14</sup>

Some historians attribute the expansionism of Nazi Germany to the belief in the Heartland theory because of the studies of Karl Haushofer. Haushofer, as a student of Mackinder’s theories, was in a position to influence both Adolf Hitler and Rudolf Hess. In 1943 Mackinder refined his theory in the journal *Foreign Affairs* where he contended “they [United States and Great Britain] would have to balance the unification of Eastern Europe with the Heartland, which now corresponded to the USSR.”<sup>15</sup>

In his writings about Russia George Kennan, the father of the containment theory, used similar concepts as found in Spykman’s Rimland theory. Sloan posited “it can be suggested that Spykman’s geopolitical theory molded the perception and the actions of a policy-maker such as Kennan.”<sup>16</sup> George Kennan probably expressed the containment theory most clearly when he wrote “Put a wall around the Russians and the evil society will disintegrate.”<sup>17</sup> States with sufficient sea-power and bases in the right littoral areas around Mackinder’s Heartland could control or contain the area. From the perspective of the United States this translated into containment of the Soviet Union during the Cold War.

In the post World War Two years Sloan suggests, “policy makers adopted geopolitical perspectives that were complementary to their political objectives.”<sup>18</sup> Some

policy makers assumed non-Communist states had to be geographically connected to resist the spread of Communism. Spykman also theorized that along with being geographically continuous the Rimland was also politically continuous.<sup>19</sup> This helps us understand the evolution from geographical containment to political containment which evolved into what we call the domino theory.

The domino theory used the image of a chain of dominos falling as analogous to the spread of Communism. The fall of any country to Communism would lead to the fall of neighboring countries. Vietnam is an example of the application of policies at least partly derived from theories based on geography. Vietnam resides in the geographical belt of Spykman's Rimland. After the fall of China to Communism, in the eyes of the United States, the fall of Vietnam would be the next domino in the row. This helps to explain how the U.S. could consider what it viewed as a small, backward country, halfway across the globe as having a strategic value. Whether or not geopolitics is an accurate depiction of the world, geopolitical theorists have been in key positions at key times and have influenced policy.



Geopolitical Map of the World (Mackinder's Heartland and Spykman's Rimland)<sup>20</sup>

Geography has not only affected foreign policy but also the internal policy and development of the United States. The drive of the U.S. to expand to the west coast, which we phrased 'Manifest Destiny', was based on the ideology of claiming all the geography between the Atlantic and Pacific oceans and gaining access to sea routes provided by the Pacific Ocean. Sloan captures these motives when he writes

"The third type of geopolitical relationship which can be identified is potentially the most significant. It represents an acknowledgement and expansion of the United States in the nineteenth century, and the future political relevance of the Pacific Ocean, both economically and militarily for the United States. The use of phrases such as 'Manifest Destiny' is significant."<sup>21</sup>

Manifest Destiny was a simple concept that resonated with political leaders and the people. It contained both a religious and geographical component and encouraged countless Americans to risk their lives to adventure west. It guided how we dealt with other nations occupying what is now considered the western part of the United States, in a sense not only influencing domestic policy but foreign policy as well. As John O'Sullivan wrote in 1845, "One of the most influential slogans ever coined "Manifest Destiny" expressed the romantic emotion that led Americans to risk their lives to settle the far west."<sup>22</sup>

With geography and geopolitics playing such a prominent role in our history and policies, it is wise to examine the concept critically. With new technologies, political situations and world dynamics changing at such a rapid rate, does geopolitical theory retain any validity at all? Does geography still matter enough to use it in policy-making decisions? Sprout believes "It is reasonable to conclude that we have nearly reached the end of the line for old-style geopolitical forecasting when the sheer destructiveness of ballistic missiles with nuclear explosives....and when these missiles, if used, can be

fired from any point upon the earth's surface."<sup>23</sup> Sloan echoes these thoughts as he summarizes many writers' thoughts "the political significance of the geographical configuration of continents and oceans was no longer relevant, because it was now possible to project terrific firepower over great distances ....without conquering a strategic land."<sup>24</sup> Does geography matter anymore? We will look at some of the changes in geography and investigate how these changes have and should expand the role of geography in politics.

There have been numerous changes in the world since many of the geographical theories were written. Chapter three of the U.S. Army's Field Manual (FM) 5-0 lists globalization, technological diffusion, and climate change as examples of trends it considers could present either dilemmas or opportunities in the future. The Center for Strategic and International Studies (CSIS) lists climate change and shifting resource bases as two of its five major trends in the world's changing landscape.<sup>25</sup> The internet, 24-hour news and instant communications have made the world a smaller place. Global economics change the way we trade, and traditional shipping lanes are giving way to a hub-and-spoke transportation arrangement based on "megaports". The Panama Canal will be expanded by 2014 allowing for the transit of larger shipping vessels. Climate changes will bring about additional challenges and opportunities, some of which are geographic. We are just beginning to take advantage of space and cyberspace which some argue are new geographies in their own right. These are not predictions about our future environment. These changes are all happening now. They will all influence U.S. policy, and geography is an integral part of each of them.

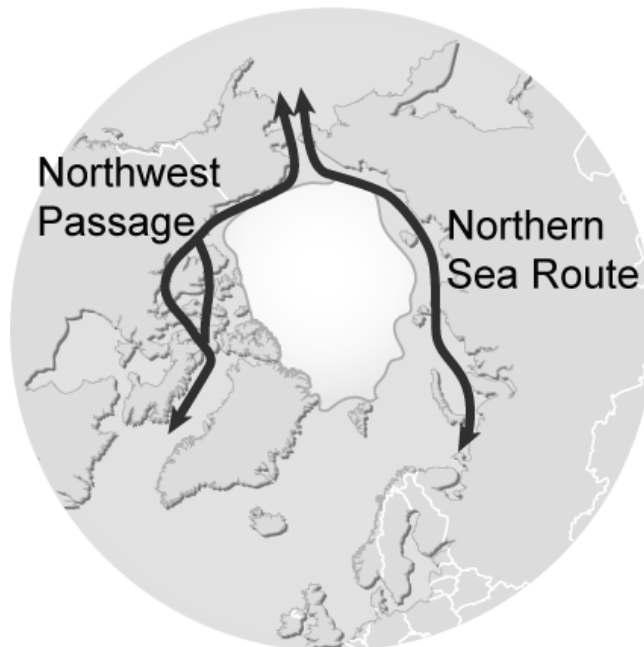
## Climate Change

The world is getting warmer. There is political disagreement on the cause and on what should be done, but little scientific disagreement on the effects. As the ice caps melt and recede, there will be three generally accepted results. The first is the eventual opening of northern sea routes, which will reduce the length of certain shipping routes by 4000 nautical miles.<sup>26</sup> The Joint Operating Environment (JOE) published in 2010 states “this [climate change] could open new shipping routes across Archipelagic Canada and Northern Russia that could dramatically shorten transit times between Europe and Northeast Asia.”<sup>27</sup> The opening of new sea routes not only will decrease distances but will also increase capacity, lessening traffic on existing routes and allowing overall traffic growth. These new routes are both economically and strategically important. Canada has already announced the opening of a new deep-sea port in Nanisivik, the eastern entrance to the Northwest Passage.<sup>28</sup> This site will be used for both military and civilian purposes. At the same time, Canada is trying to boost its sovereign claims to the passage areas.<sup>29</sup> These additional transportation routes change the strategic balance of the importance of different geographic areas. An arctic area in northern Canada, for example, which is sparsely populated and all but ignored, is becoming the center of much political debate and a possible economic opportunity and security vulnerability for Canada. The additional routes available to the world not only increase overall capacity but decrease the strategic and economic importance of each route. Any given route or geographical choke point becomes less strategically important as the volume of traffic, through the route or choke point, decreases. Multiple routes give us multiple options but also multiple choke points. This changing geography is



changing the geopolitical framework of the world and affecting military, legal and economic policy decisions.

The United States Council on Foreign Relations has recently held hearings on the effects of climate change in the north. These hearings discussed the construction of deep water ports, the building of icebreakers, security and trade issues and the roles and responsibilities of the Coast Guard.<sup>30</sup> President Obama's task force to study and update the United State's Ocean Policy is due to present its findings shortly. The Arctic is a central theme in this policy. The effect of climate change on the northern sea routes is already affecting policy around the globe and will continue to be a big consideration in the future.



Map of the Northern Sea Routes<sup>31</sup>

The second accepted result of climate change is new access to additional geographies containing natural resources. Russia has already planted a flag 4000 meters under the North Pole to lay claim to nature resources that may become

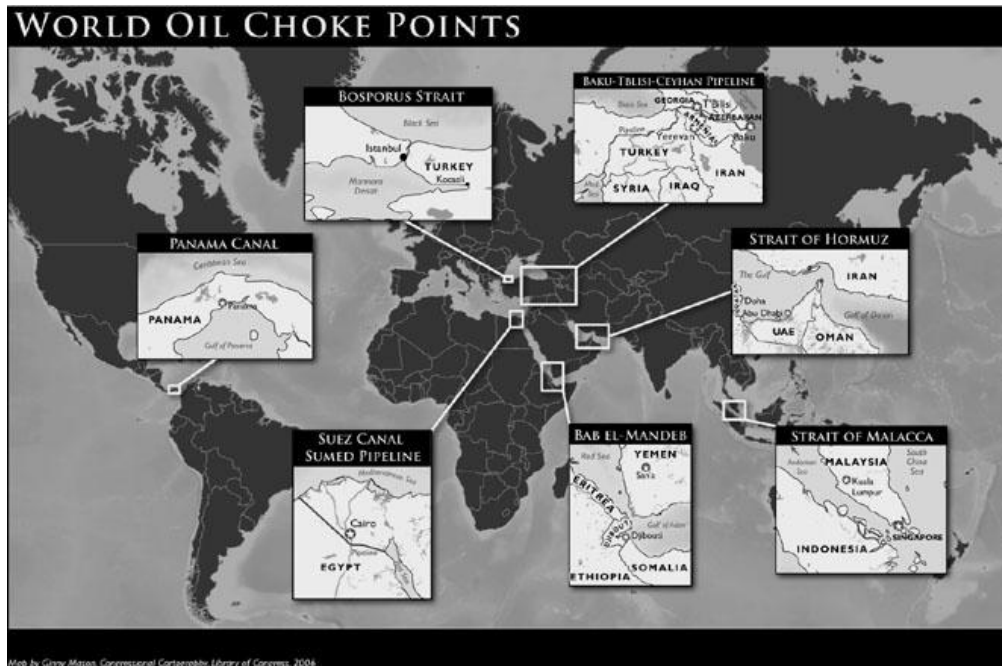
accessible with the continued melting of the ice. Prime Minister Vladimir Putin views this as a move to secure Russia's "strategic, economic, scientific and defense interests in the Arctic."<sup>32</sup> Russia claims that this area is a continuation of its continental shelf. Canada and Denmark are making similar claims to this underwater area, known as the Lomonosov Ridge.<sup>33</sup> International law and governing bodies will continue to struggle with the challenges these conflicting claims bring.

Climate change will make certain parts of the world dryer. The need for access to water may create migrant populations, humanitarian issues and tension over the competition for water. Resources are part of the geopolitical framework and will continue to be important factors shaping policies around the world.

The third accepted result of climate change is the rise of ocean levels and its impact on coastal areas of the world. The Greenland Ice sheet has enough ice to raise the sea level six meters<sup>34</sup> if it melted, and the melting of the West Antarctic Ice Sheet would raise sea levels six to seven meters.<sup>35</sup> Scientist have trouble estimating how much of this ice will melt and to what level the seas will rise, but rising sea levels will doubtless have an impact on global coastal areas.<sup>36</sup> A rise of just one meter in sea level would swamp every city on the east coast of the United States from Miami to Boston.<sup>37</sup> These types of geographical changes would be felt in many of the littoral areas of the globe. This has huge implications for policy-makers around the world. Governments are already struggling with what, if any, actions should be taken. The inability to agree on the cause and possible effects of climate change is causing tension between states. Climate change is already a big political, security, economic and strategic issue that will change the physical geography of the world.

## Shipping Changes

Over 90 percent of world trade goes by ship, however the shipping industry is changing. Ships are getting larger. Cargo is becoming more containerized as opposed to bulk. Traditionally, a lot of attention has been paid to geographical choke points in the sea lanes- i.e., geographical areas that limit the amount of traffic that can pass due to their relative small size yet are important due to the distances and time saved by traversing these areas. Examples of these choke points are the Persian Gulf, Taiwan Straits, Suez Canal, Strait of Malacca and Strait of Hormuz. They have been and will continue to be points of friction for military and political confrontation. However, the shipping industry has increasingly relied on a small number of enormous megaports<sup>38</sup> which increase the efficiency of containerized shipping vessels. Megaports are capable of handling the cargo of the largest container ships. John Fox posits that these changes have “rerouted sea-borne commercial traffic and reduced the importance of traditional choke points while increasing the significance of a small number of megaports.”<sup>39</sup> The shipping lanes have moved to a hub and spoke configuration.<sup>40</sup> These hubs (megaports) have become new geographical choke points. Fox uses figures from a study by the National Defense University showing the cost increase to goods from the lack of access to the Malacca Strait, the second busiest geographical choke point in the world, for an extended period would only increase shipping costs by 0.2% while blocking a major port would increase costs by 20%.<sup>41</sup> To give an idea of the increasing concentration of shipping on a smaller number of ports, 40% of all containers coming into the United States enter through the port in Savannah.<sup>42</sup> As we look at the geography of shipping and economic policies we need to consider the man-made geography of megaports along with the traditional geographical choke points.



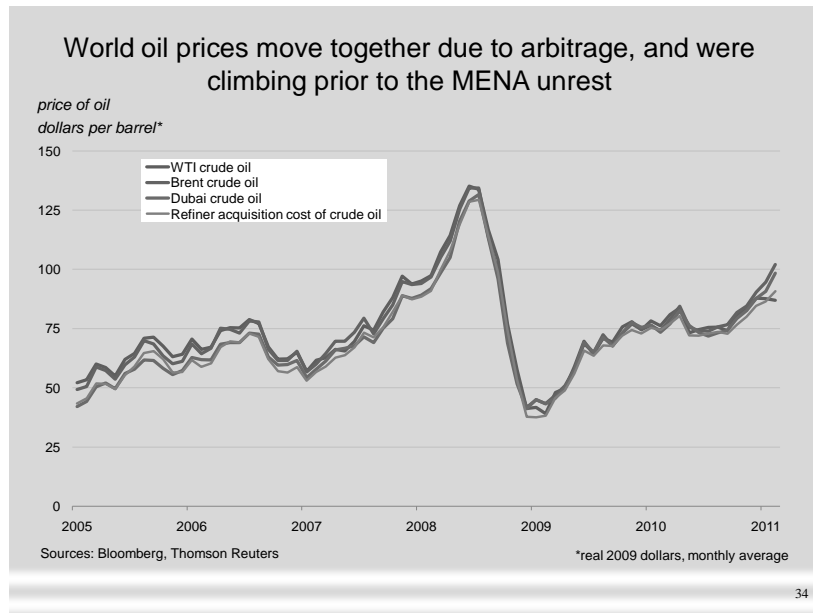
Map of Geographical Choke Points<sup>43</sup>

Although the geography of shipping is being transformed by container ships and megaports, traditional geographical choke points are still important. In some cases, like the Panama Canal, traditional choke points are regaining some lost relevance. By 2014 the expansion of the Panama Canal should be complete. The change will almost triple the size of ships able to utilize the canal. Kurt Nagle, president of the American Association of Port Authorities, says “I don’t think it’s overhyped to say it’s [the expansion of the canal] a game changer.”<sup>44</sup> All but eight of the world’s largest container vessels will be able to traverse the canal, opening another trade route. The big market for container ships is between the United States’ east coast and China. The trip takes 27-28 days through the Suez Canal route and 25-26 days through the Panama Canal route.<sup>45</sup> The nearly same transport time allows the canal to be an alternative route for the Suez choke point on the world’s busiest trade route.

The magnitude of these changes is not lost to cities on the east coast of the United States. Norfolk is currently the only port on the East Coast that is deep enough to handle the “post-Panamax” ships.<sup>46</sup> The cities of Miami, Charleston, Jacksonville, Fort Lauderdale and Savannah are all asking for millions of dollars to deepen their ports. This change to geography is thus already impacting local and national policies.

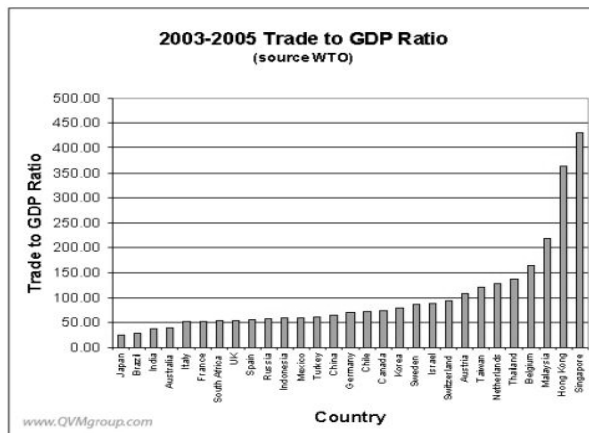
### Globalization

Globalization has increased the importance of trade and trade routes. Investor Words defines globalization as “the process of increasing the connectivity and interdependence of the world’s markets and businesses.”<sup>47</sup> There can be little argument that the world’s markets and businesses are becoming more and more interdependent. A United Nations study demonstrates the importance of trade as a globalization trend when it labels “international trade as the primary engine of international growth and development.”<sup>48</sup> Actions in one economy have ripple effects in economies around the world. Large businesses are transnational. Cargos and resources are traded as commodities, delivered “just in time”, influenced by world markets and currency valuations. Looking below at the U.S. Energy Information Administration’s (EIA) world oil prices chart you can see how oil is traded as a commodity and the world prices move together as a result of the markets and free trade. As a commodity, oil is traded based on price not by where it is produced. This means a disruption in the oil supply at any location will affect the price of oil everywhere.

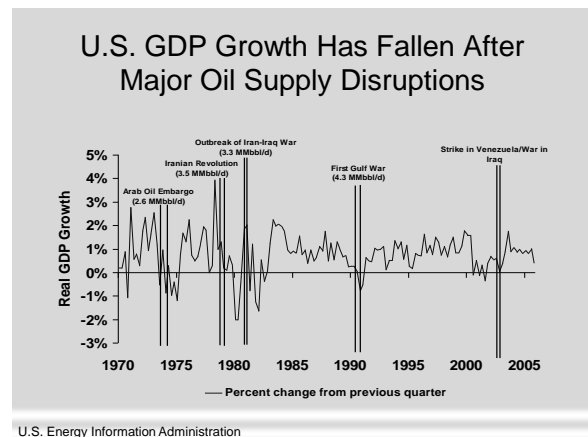


World Oil Prices 2005-2011<sup>49</sup>

A quick look at countries' Gross Domestic Product (GDP) as a percentage of trade shows us how important world trade and trade routes are to world economies. Although dated, the below graph shows the percentage of trade to GDP for nations around the world.



Trade to GDP Ratio Chart<sup>50</sup>



GDP Growth vs. Oil Supply Disruptions<sup>51</sup>

The World Trade Organization's percentages for 2009 list several countries over 100 percent including Switzerland and Malaysia with Canada at 64% and China at 58%.<sup>52</sup> Countries with a large transit trade can have exports exceeding 100 percent of GDP. Another indicator is the EIA's chart showing the effect oil disruptions have on U.S. GDP growth. The world's GDP and economy are linked to trade and trade is linked to the world geography. We need look no further than the global economic crisis of 2008 to see the impact of our global interdependency. The dependence on trade to so many nations will continue the importance of trade routes, choke points and geography to politics and policy.

### Cyberspace

The United States realizes the role cyberspace plays. Joint Forces Command (JFCOM) posits the main enabler for the U.S. to project its global military power, which supports free trade, is its complete control over what it terms the "global commons". History has typically discussed the oceans and access to areas of the world as the global commons but JFCOM recognizes "that the global commons have now expanded to include the domains of cyber and space."<sup>53</sup> Cyberspace is the common geography required by international organizations to operate at today's increased speed of business. Social networks are providing a virtual world where people "meet" and interact. International companies and consumers conduct business in online virtual stores allowing customers to shop for goods and services or conduct banking in the same manner they would in an actual brick and mortar building but at a speed never before possible.

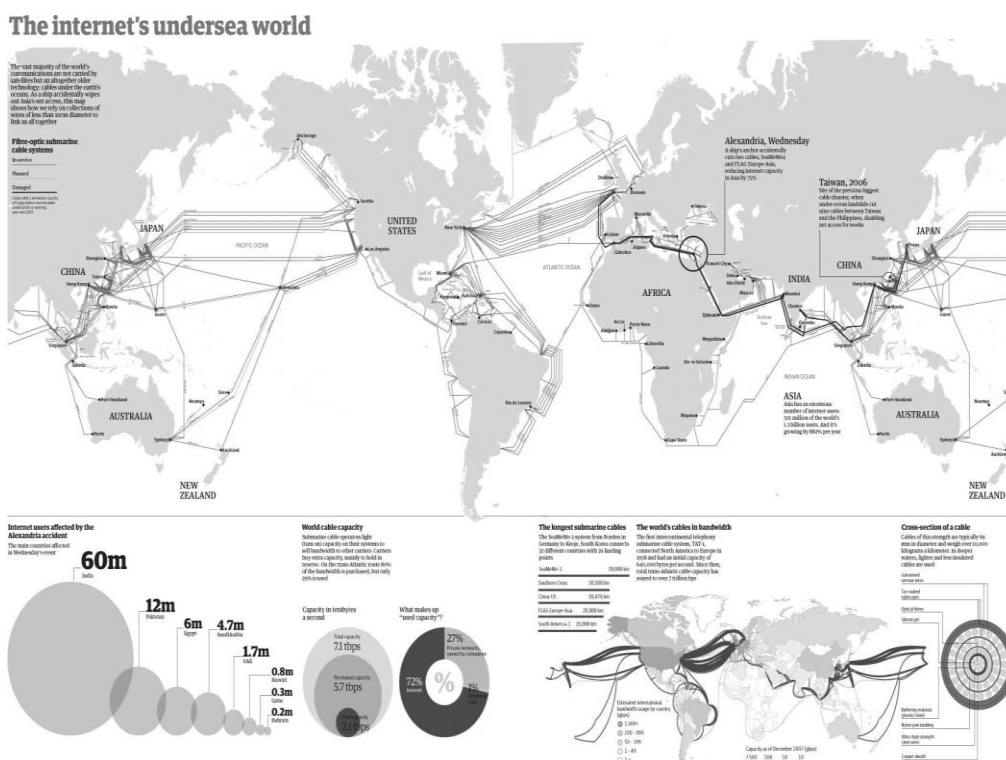
The U.S. military controls many of its forces in this virtual space with tools that provide a common operational picture (COP). Walk into any operations center, whether

it is military, financial or industrial, and you will see walls lined with large digital displays and desks stacked with computers to create a virtual representation of events occurring in the real world. With computer and information technology capabilities the information is collected in real-time providing an accuracy, reality and speed not possible in the past. Business is already hard at work determining how to best exploit this new geography for a competitive advantage while adversaries are working to deny access to this new world common for political and economic gain. As Martin van Creveld states “no sooner does technology open any environment to human activity than that environment becomes the theater of warlike operations.”<sup>54</sup> Many extremist organizations and states have already realized that, while it is difficult to attack the United States in the traditional global commons, it may be more vulnerable in this new geography.

The topology of a computer network can be studied like the topology of land masses. There are common routes in the network that much of the world’s data traffic passes such as satellite links and undersea cables. Servers and routers process much of our data traffic like megaports “process” our trade. These data routes and hardware sites are the choke points of this new geography. The diagram below allows us to identify important data routes and choke points for cyberspace like we do for transportation lanes. The new geography of cyberspace has both physical and logical vulnerabilities, high-speed access routes and choke points like any traditional geography. The Department of Defense realizes the challenges and opportunities of the new geography of cyberspace and has created a functional command, US Cyber Command, to operate it. Ensuring freedom of movement and protecting this new



geography has already begun to affect our national policy and will continue to be a national interest in current and future politics.



## The Geography of Undersea Internet Cables<sup>55</sup>

### Space

“International law does not extend a nation’s territorial sovereignty up to Earth orbit.”<sup>56</sup> Space is its own geography or, as Joint Forces Command claims, a global common. It is used for a variety of purposes many of which have strategic importance. Common uses include reconnaissance, navigation, entertainment, communications and early warning. As mentioned earlier, space provides some of the transmission paths or data routes that have become critical for business and government. Technology has only recently allowed us access to the new geography, yet freedom of movement in this new medium has become of great strategic importance. This freedom of movement grants us access to almost any physical location on the earth. We do not need to be

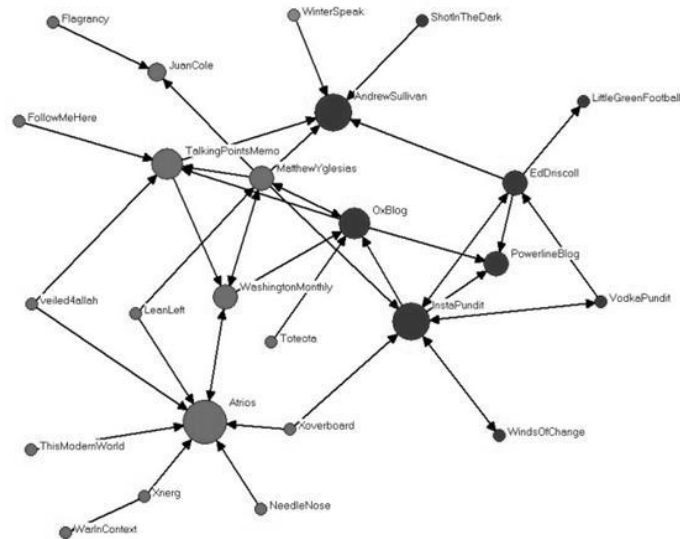
located physically next to an area of interest to be able to monitor and in some cases influence it. Space platforms do not need basing or over-flight rights to collect information from anywhere in the world. Space is the ultimate high ground. It allows us a better view of the world than any mountain top. Assets parked on this high ground are difficult to attack. This new common has also allowed us to move information world-wide and, like any other geography, has its own set of choke points and vulnerabilities to consider. Communication and surveillance satellites have given us a great advantage, but also vulnerabilities, as we have grown dependant on their availability. Orbital parking spots for satellites are a resource to be competed for. The United States' Space Policy already recognizes space as a global common that "all nations have the right to explore and use space for peaceful purposes" and all nations have "the rights of passage through, and conduct of operations in, space without interference."<sup>57</sup> Space is already an important geography and, with the continued expansion of access, will continue to be important to our national policy.

#### Network Theory: A New Way to Look at Geography and Our Environment

When the only geography we considered was the land and seas a map was a great tool to visualize the world. The geography in which we operate and formulate policy today has many new dimensions to consider. Networks are a way to understand and depict these complex environments and relationships using diagrams of nodes, which are objects, and links, which are relationships, to describe them. The diagram allows you to not only study objects in an environment but, just as importantly, the relationships between those objects. Just as maps give us a visual representation of our traditional geographical environment, network diagrams give us a representation of the new geographical environment. State players, economies, geography, megaports,

transportation routes, technology, public opinion or transnational businesses could be considered examples of nodes in the global system. Lines, or links, are drawn between nodes to reflect relationships between nodes and graphically depict which nodes have some type of impact on other nodes. Some nodes are relatively isolated while other nodes have many links. The more connections a node has to other nodes within the system the more likely it is influential in the network. Nodes with many links are known as hubs and they are the items that influence a particular system the most. The object of network or system theory, besides a better understanding of these complex environments, is to be able to predict which nodes will become hubs and thus have a larger global influence. The hubs are the areas of the system your policy can be directed against with the best chance to influence the system. A network diagram can also help us to visualize how the effects of one policy could have an influence not only on the targeted node but also on nodes it is connected to.

Below is an example of a network diagram showing the influence of different bloggers on a particular topic. Each blogger is represented by a node. The more nodes any blogger is connected to, the more influence they may yield on the blog site. The darker a link between nodes the more traffic traverses the link. In this example, you can determine which blogger's opinions yield more influence on the blog site by observing their number of connections and the thickness of each link (connection). If I wanted to impact the blog site, I would try to affect the bloggers with the most influential (darkest) links. This diagram helps to visual what is going on within the complex and loosely structured world of a blog site and provide us a tool to develop a course of action to affect the system.



Example of a Network Diagram

The new geographies and new changes to old geographies need to be considered as a whole when looking at our political environment. It is difficult to understand the motivations of a state when you look at issues and policies of the state like a series of unrelated systems. Climate change affects shipping routes, which affect nations GDPs, which affect world economies which affects a nation's soft power which affects other parts of the political environment. A policy affecting one area will cause changes in another. Network theory can provide the visualization or map to help policy makers better understand the cause and effect relationships in this complex geography. This new geography will help us to identify critical nodes (key terrain), important relationships (access routes), nodes common to many systems (choke points) and areas of common interest within our system or environment.

## Conclusion

Mackinder's predictions based on his theory of internal lines and the breadbasket never really came to fruition nevertheless, he and the other geopolitical theorists played

an important role in helping us develop a national policy that arguably helped win the cold war. The traditional theorists provided us a new way to look at our world within a geographical context that helped to partially explain events in history. As the model was expanded to include the development of the world, physical geography alone could not explain or predict future trends. Although Russia occupied Mackinder's Heartland, it did not have the technology to take advantage of its position or vast resources. Geopolitics is more than the study of land masses and waterways. It is the study of the relationships between all the geographies. A choke point alone does not provide us much to build policy upon. However, a choke point, leading to oil resources, in an area with an unfriendly population, technologically advanced, in close proximity to a megaport, adjacent to one of the world's busiest trade routes, servicing one of our largest trading partners, affecting a large portion of our GDP starts to provide us with a model we can use to understand the environment. It also helps us to visualize how actions in one of the geographies could affect other geographies. It is not any one of the geographies alone that allows for the development of good policy. It is the understanding of the relationships between all the geographies examined as a whole that aids the development of policy. Geography, with all its complexities, will continue to be a crucial factor in developing U.S. policy. The world is a complicated system with many players, many interests and many relationships all interacting in a variety of geographies. Future policy should be formulated by understanding the entire geography of our environment.

"We can't solve problems by using the same kind of thinking we used when we created them."

Albert Einstein

## Endnotes

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